

Claims

We claim:

1. A device for inserting medical instruments into the human body, comprising a navigation system which monitors and guides the device, wherein the navigation system comprises at least three positioning markers, wherein the positioning markers can be distinguished from one another by magnetic resonance radiological imaging, and wherein the device is monitored and guided under magnetic resonance radiological imaging.
2. The device according to claim 1, further comprising an instrument insertion channel, wherein the instrument insertion channel comprises a scaling so that the solid angle of the instrument insertion channel can be measured and adjusted.
3. The device according to claim 1, the device comprising at least one part, wherein the positioning of an inserted medical instrument is performed by a tilting, or a tilting and rotating motion, of one of the at least one device parts.
4. The device according to claim 1, wherein the tilting, or tilting and rotating motion, of the at least one device part is effected by an actuation.
5. The device according to claim 1, wherein the orientation of the inserted instrument is optically indicated or scannable by sensors directly at the device.
6. The device according to claim 1, wherein the device is identifiable by navigations systems under radiological imaging in total or in parts.
7. The device according to claim 1, comprising a plurality of attached, optically active or optically reflecting positioning markers, which are monitored by a respective camera system,

and wherein from the position of the attached, optically active or optically reflecting positioning markers to each other, the position and orientation of the device can be calculated.

8. The device according to claim 1, further comprising a resonator system having passive electro-technical parts.

9. The device according to claim 1, wherein the device works as an actively sending system.

10. The device according to claim 1, further comprising a number of volumes which are filled with a magnetic liquid wherein the magnetic liquid is positively or negatively identifiable.

11. The device according to claim 1, wherein the device is manufactured of a material non-identifiable under radiological imaging, and wherein the device further comprises certain materials which are positively (actively) or negatively (passively) identifiable under radiological imaging attached at several locations.

12. The device according to claim 6, wherein the device is identifiable by navigation systems under magnetic resonance tomography (MRI), in total or in part.